



# UNITED STATES PATENT AND TRADEMARK OFFICE

MN  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,624	02/19/2002	Yoko Kumagai	62807-040	9550
20277	7590	05/14/2007	EXAMINER	
MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096				DOAN, TRANG T
ART UNIT		PAPER NUMBER		
2131				
MAIL DATE		DELIVERY MODE		
05/14/2007		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/076,624	KUMAGAI ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Trang Doan	2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 22 February 2007.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 11-20 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 19 February 2002 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    - Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    - Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____. 5) <input type="checkbox"/> Notice of Informal Patent Application 6) <input type="checkbox"/> Other: _____.
--	--

## **DETAILED ACTION**

1. This action is in response to the amendment filed on 02/22/2007.
2. Claim 11 has been amended; Claims 11-20 are pending for consideration.

### ***Continued Examination Under 37 CFR 1.114***

3. A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 02/22/2007 has been entered.

### ***Response to Arguments***

4. Applicant's arguments filed on 02/22/2007 have been fully considered but they are not persuasive because Applicant alleges that the prior art of record does not teach:
  - a) a certificate issuing request including the contents signed by the registration authority, and the registration signature.
  - b) a public key certificate including the contents signed by the registration authority, the registration authority signature, issuing contents issued by the issuing authority, and an issuing authority signature to the content signed by the registration, the registration authority signature and issuing contents issued by the issuing authority.

Examiner disagrees with Applicant's arguments:

a) the prior art of record does teach a certificate issuing request including the contents signed by the registration authority (see *figures 6-7 and lines 24-28 of column 20: where the certificates refer as the contents cited in claim 11*), and the registration signature (see *figure 16A and lines 24-34 of column 20: where the Root RA is the registration authority, the Root RA attaches its signature to the certified certificates and then send the certificate issuing request including its signature and the certified certificates to the issuer authority*). Figure 16A, Root RA (1601) transmits the certificate issuing request which includes certificates signed by the Root RA and the Root RA's signature (see *item 2*).

b) the prior art of record further teaches a public key certificate including the contents signed by the registration authority, the registration authority signature, issuing contents issued by the issuing authority (i.e. *Issuer Authority*), and an issuing authority signature to the content signed by the registration, the registration authority signature and issuing contents issued by the issuing authority (see *figure 16A and lines 24-39 of column 20: Issuer Authority(1602) signs the contents of the certificate issuing request from the registration authority (i.e. Root RA) which includes registration authority's signature and the certified certificates. After signing the certificate issuing request of the registration authority, Issuer Authority transmits the generated public key certificate of the registration authority based on the registration authority's signature and the certified certificates, and its signature back to the registration authority (i.e. Root RA)*).

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Examiner has maintained the art rejection in the previous office action by the foreign patent (EP 1130844), however a corresponding U.S. Patent (6990583) is applied in this application.

7. Claims 11-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Matsuyama et al. (6990583) (hereinafter Matsuyama).

8. Regarding to claim 11, Matsuyama teaches generating, by the registration authority, a signature to contents registered with the public key certificate (Matsuyama: see figure 16A and lines 24-34 of column 20); generating, by the registration authority, a certificate issuing request including the contents signed by the registration authority and the registration authority signature (Matsuyama: see figures 16A and 19, column 3 lines 22-40 and column 22 lines 15-67 and column 23 lines 1-5); sending the certificate issuing request from the registration authority to the issuing authority (Matsuyama: see figure 16A and column 22 lines 64-67 and column 23 lines 1-5); and generating, by the issuing authority, the public key certificate including the contents signed by the registration authority, the registration authority signature, issuing contents issued by the

issuing authority, and an issuing authority signature to the contents signed by the registration authority, the registration authority signature and issuing contents issued by the issuing authority (Matsuyama: see figure 16A and lines 24-39 of column 20).

9. Regarding to claim 12, Matsuyama teaches wherein the contents signed by the registration authority is a predetermined identifier to specify information to be certified by the public key certificate of the end entity (Matsuyama: see figure 2, column 11 lines 18-42).

10. Regarding to claim 13, Matsuyama teaches wherein the contents signed by the registration authority is a hash value calculated by applying a hash function to information to be certified by the public key certificate of the end entity (Matsuyama: column 2 lines 30-45 and column 16 lines 1-67 and column 22 lines 31-67 and column 23 lines 1-5).

11. Regarding to claim 14, Matsuyama teaches verifying, by a verifying party, the issuing authority signature with the contents signed by the issuing authority; and verifying, by the verifying party, the registration authority signature with the contents signed by the registration authority included in the public key certificate (Matsuyama: column 17 lines 5-46 and column 3 lines 22-40 and column 22 lines 15-67 and column 23 lines 1-42).

12. Regarding to claim 15, Matsuyama teaches acquiring, by a verifying party, information signed by the registration authority according to the identifier in the public key certificate (Matsuyama: column 16 lines 1-67 and column 17 lines 1-46 and column 3 lines 22-40 and column 22 lines 15-67 and column 23 lines 1-42); calculating, by the

verifying party, a hash value of the acquired information (Matsuyama: column 1 lines 29-45 and column 16 lines 1-67 and column 17 lines 1-46 and column 23 lines 5 -42); decoding, by the verifying party, the registration authority signature included in the public key certificate, by using a public key of the registration authority (Matsuyama: column 16 lines 1-67 and column 17 lines 1-46 and column 23 lines 5-42); and checking by the verifying party, whether the hash value is identical to the decoded value (Matsuyama: column 16 lines 1-67 and column 17 lines 1-46 and column 23 lines 5-42).

13. Regarding to claim 16, Matsuyama teaches calculating, by a verifying party, a hash value of the information signed by the registration authority in the public key certificate (Matsuyama: column 1 lines 29-45 and column 16 lines 1-67 and column 17 lines 1-46 and column 23 lines 5 -42); decoding, by the verifying party, the registration authority signature included in the public key certificate, by using a public key of the registration authority; and checking by the verifying party, whether the hash value is identical to the decoded value (Matsuyama: column 16 lines 1-67 and column 17 lines 1-46 and column 22 lines 15-67 and column 23 lines 5-42).

14. Regarding to claim 17, Matsuyama teaches constructing and verifying, by the verifying party, a path from the certificate authority trusted by the verifying party, up to the public key certificate (Matsuyama: see figure 17, column 20 lines 54-67 and column 21 lines 1-65); verifying, by the verifying party, the registration authority signature described in the public key certificate using the public key of the registration authority (Matsuyama: see figure 17, column 20 lines 54-67 and column 21 lines 1-65); and

Art Unit: 2131

constructing and verifying, by the verifying party, a path from the certificate authority trusted by the verifying party up to the public key certificate of the registration authority (Matsuyama: see figure 17, column 20 lines 54-67 and column 21 lines 1-65).

15. Regarding to claim 18, Matsuyama teaches wherein the verifying party obtains the public key certificate of the registration authority from a public key certificate database of the issuing authority according to the registration authority name described on the public key certificate (Matsuyama: see figure 17, column 20 lines 54-67 and column 21 lines 1-65).

16. Regarding to claim 19, Matsuyama teaches wherein the verifying party obtains the public key certificate of the registration authority described in an extended region of the public key certificate to be verified (Matsuyama: column 22 lines 6-67 and column 23 lines 1-42).

17. Regarding to claim 20, Matsuyama teaches sending, by the registration authority, a certificate invalidation request to the issuing authority of the public key certificate of the registration authority (Matsuyama: see figures 22 and 23, column 25 lines 25-67 and column 26 lines 1-37); receiving, by the issuing authority, the certificate invalidation request (Matsuyama: see figures 22 and 23, column 25 lines 25-67 and column 26 lines 1-37); and invalidating, by the issuing authority, the public key certificate of the registration authority (Matsuyama: see figures 22 and 23, column 25 lines 25-67 and column 26 lines 1-37).

Art Unit: 2131

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trang Doan whose telephone number is (571) 272-0740. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Trang Doan  
Examiner  
Art Unit 2131

T.D.

  
AYAZ SHEIKH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100